(5) Use one of the following calculation methods to demonstrate compliance with the requirements specified in Table 1 of this subpart:

(i) For emission reduction, use the results of the calculations from paragraphs (d)(3) and (d)(4) of this section in the following equation:

$$RE = [1 - (Qi - Qo)/Qi]*100$$

Where:

RE = Annual average PM removal efficiency, percent.
Qi = Annual amount of PM in uncontrolled emissions, pounds per year.
Qo = Annual amount of PM captured by control device, pounds per year.

(ii) For the 0.03 gr/dscf PM concentration, use the results of calculations from paragraphs (d)(3) and (d)(4) of this section in the following equation:

$$PC = [Qi - Qo]*7000/DCFM*MPY$$

Where:

PC = Annual average PM concentration, grains per dry standard cubic foot (gr/dscf).
Qi = Annual amount of PM in uncontrolled emissions, pounds per year.
Qo = Annual amount of PM captured by control device, pounds per year. (Qo is equal to zero if the process vent stream is not routed to a control device.)
DCFM = Process vent stream flowrate, dscf per minute (dscfm).
MPY = Minutes per year equipment are in target HAP service.

(e) If you are certifying that the particulate matter concentration of each of the process vent streams from equipment in target HAP service within a chemical preparation operation will not exceed 0.03 gr/dscf, then you must:

(1) Include the following information in your NOCSR (in accordance with § 63.11585(b)(6)).

(i) A certification statement by the responsible official that certifies that the particulate matter concentration of each of the process vent streams from equipment in target HAP service within a chemical preparation operation will not exceed 0.03 gr/dscf. The statement shall contain that official's name, title, and signature, certifying the truth, accuracy, and completeness of the certification statement.

(ii) Engineering calculations and supporting documentation containing:

(A) The annual raw material losses to the atmosphere from paragraph (d)(3) of this section; and

(B) The calculation of the PM concentration of process vent streams from equipment in target HAP service from paragraph (d)(5)(ii) of this section, using zero for the parameter Qo since there is no control device, given in gr/dscf.

(2) For each subsequent calendar quarter (*i.e.*, three months), maintain the following records to ensure that your certification statement is valid on a continual basis:

(A) The quarterly raw material losses to the atmosphere from paragraph (d)(3) of this section; and

(B) The calculation of the PM concentration of process vent streams from equipment in target HAP service from paragraph (d)(5)(ii) of this section, but on a quarterly basis instead of an annual basis, given in gr/dscf. Use zero for the parameter Qo since there is no control device.

§ 63.11583 What are my monitoring requirements?

To demonstrate continuous compliance with the emissions standard in Table 1, you must use one of the monitoring methods described in paragraphs (a), (b) or (c) of this section while equipment within a chemical preparation operation are in target HAP service:

(a) Operate a bag leak detection system with alarm that will alert operators of a leak in the control device filter material. If a bag leak detection system with alarm is used to demonstrate compliance, then the following steps must be performed:

(1) You must install, calibrate, operate, and maintain each bag leak detection system and alarm according to manufacturer's specifications, and as specified in paragraph (a)(2) of this section.

(2) The bag leak detection system and alarm must be maintained and operated in a manner consistent with good air pollution control practices at all times.

(b) Operate a control device parameter (such as pressure drop or water flow, as appropriate) monitor and alarm system that will alert operators

that the control device is operating outside the upper or lower threshold or range established by the control device manufacturer that indicate proper operation of the control device to meet the emissions reduction or PM concentration requirements.

(1) You must install, calibrate, operate, and maintain each control device parameter monitor and alarm system according to manufacturer's specifications, and as specified in paragraph (b)(2) of this section.

(2) The control device parameter monitor and alarm system must be maintained and operated in a manner consistent with good air pollution control practices at all times.

(c) Operate a continuous parameter monitoring system (CPMS) to monitor control device operation. If a CPMS is used to demonstrate compliance, then the following steps must be performed:

(1) Establish and maintain site-specific control device parameter values that indicate proper operation of the control device to meet the emissions reduction or PM concentration requirements.

(2) You must operate the continuous parameter monitoring system (CPMS) during all periods when the process equipment is in target HAP service and use all the data collected during these periods in assessing the operation of the process vent collection system and control device.

(d) You must install, calibrate, operate, and maintain each control device CPMS according to manufacturer's specifications, and as specified in paragraphs (d)(1) through (d)(5) of this section.

(1) The CPMS must be maintained and operated in a manner consistent with good air pollution control practices at all times.

(2) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period.

(3) To determine the 24-hour rolling average for the monitored parameter(s), you must:

(i) Have data from at least three of four equally spaced data values for that hour from a CPMS, except as stated in paragraph (c)(2) of this section.

(ii) Determine each successive 24-hour rolling average from all recorded readings for each 24-hour period, except as stated in paragraph (c)(2) of this section.

(4) For averaging periods of monitoring data from production in target HAP service less than 24 hours, you must:

(i) Have valid data from at least three of four equally spaced data values for each hour from a CPMS that is not out-of-control according to your manufacturer's recommendations.

(ii) Determine the average from all recorded readings for the production period, except as stated in § 63.11583(c)(2).

(5) You must record the results of each calibration and validation check of the CPMS.

(e) For each pressure measurement device, you must meet the requirements of paragraph (b) or (c) of this section, as applicable, and the following:

(1) Locate the pressure sensor(s) in, or as close as possible to, a position that provides a representative measurement of the pressure.

(2) Use a gauge with a minimum measurement sensitivity of 0.12 kiloPascals or a transducer with a minimum measurement sensitivity of 5 percent of the pressure range.

(3) Check pressure tap for plugging daily. Perform an accuracy check at least quarterly or following an operating parameter deviation:

(i) According to the manufacturer's procedures; or

(ii) By comparing the sensor output to redundant sensor output.

(4) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(5) At least monthly or following an operating parameter deviation, perform a leak check of all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage, if redundant sensors are not used.

(6) You must record the results of the plugging, accuracy and calibration checks specified in paragraphs (e)(3) through (e)(5) of this section in accordance with § 63.11585.

(f) For each monitoring system required in this section, you must develop and make available for inspection by the delegated authority, upon request, a site-specific monitoring plan that addresses the following:

(1) Selection and justification of the monitored parameter that indicates proper operation of the control device to meet the emissions limitation, if the parameter measured is something other than pressure drop.

(2) Installation of the bag leak detector, parameter monitoring device, or CPMS at a measurement location relative to each affected process unit such that the measurement is representative of control of PM emissions (*e.g.*, on the last control device);

(3) Performance and equipment specifications for the parametric signal analyzer, alarm, and the data collection and reduction system, as appropriate; and

(4) Performance evaluation procedures and acceptance criteria according to the manufacturer (*e.g.*, calibrations).

(5) Ongoing operation and maintenance procedures in accordance with the manufacturer's recommendations or the general requirements of § 63.8(c)(1) and (c)(3);

(6) Ongoing data quality assurance procedures in accordance with the manufacturer's recommendations; and

(7) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i) and the requirements of § 63.11585.

(g) You must conduct a performance evaluation of each bag leak detection system, control device parameter monitor and alarm system, or CPMS in accordance with your site-specific monitoring plan.

(h) You must operate and maintain each bag leak detection system, control device parameter monitor and alarm system, or CPMS in continuous operation, and collect parametric data at all times that emissions are routed to the monitored control device.

§ 63.11584 What are my initial and continuous compliance management practice requirements?

(a) For each new and existing affected source, you must demonstrate initial compliance by conducting the inspection activities in paragraph (a)(1) of this section and demonstrate ongoing compliance by conducting the inspection activities in paragraph (a)(2) of this section.

(1) Initial vent collection system and particulate control device inspections. You must conduct an initial inspection of each vent collection system and particulate control device according to the requirements in paragraphs (a)(1)(i) through (iv) of this section. You must record the results of each inspection according to paragraph (b) of this section and perform corrective action where necessary. You must conduct each inspection no later than 180 days after your applicable compliance date for each control device which has been operated within 180 days following the compliance date. For a control device which has not been installed or operated within 180 days following the compliance date, you must conduct an initial inspection prior to startup of the control device.

(i) For each wet particulate control system, you must verify the presence of water flow to the control equipment. You must also visually inspect the vent collection system ductwork and control equipment for leaks (as defined in § 63.11588, ''What definitions apply to this subpart?'') and inspect the interior of the control equipment (if applicable) for structural integrity and the condition of the control system.

(ii) For each dry particulate control system, you must visually inspect the vent collection system ductwork and dry particulate control unit for leaks (as defined in § 63.11588, ''What definitions apply to this subpart?''). You must also inspect the inside of each dry particulate control unit for structural integrity and condition.

(iii) An initial inspection of the internal components of a wet or dry particulate control system is not required if there is a record that an inspection has been performed within the past 12 months and any maintenance actions have been resolved.